is at once distinguished by the spathulate round-tipped bracts, short pedicels, and copiously hirsute rather than appressed-setulose achenes. Its involucre as promptly separates it from other near allies, such as *S. Randii* (Porter) Britton and *S. chlorolepis* Fernald; the latter also quickly distinguished by its truncate to round-tipped leaves, elongate pedicels (1–1.5 cm. long) and small involucres (3–4 mm. high). *S. Victorinii* is simulated by some specimens of *S. hispida*, var. *tonsa* Fern., but the latter plant has the stems villous, at least at base, the leaves commonly with axillary fascicles, the involucres mostly smaller and with the bracts narrowed at summit, and the achenes glabrous.

GRAY HERBARIUM.

CONTRIBUTION TO THE FLORA OF THE ISLANDS OF ST. PIERRE ET MIQUELON.

BRO. LOUIS ARSÈNE.

(*Continued from p. 133*)

PART II. ENUMERATION OF PLANTS DESERVING SPECIAL MENTION, WITH NOTES.

The following enumeration comprises: 1st. 129 plants new to the flora of St. Pierre et Miquelon, not having been reported by Gautier, Bonnet and Delamare; 2nd. 13 plants reported only by Gautier and rediscovered by me; 3rd. about 85 plants, misnamed, in my opinion, by Gautier, Bonnet or Delamare, or belonging to groups which have been revised since their publications. In doubtful cases, a note states the reasons why I decided to change the name.

For each of these plants, I give, with the date, the locality where I collected it, and, especially for the plants new to the Islands, I add indications about their habitat and frequency.

Unless otherwise stated, specimens of the plants enumerated here are deposited at the Gray Herbarium where they may be seen and their determination verified.

Some remarks with reference to identification, range etc., have been added on certain other plants, and I have included here and there several notes Professor Fernald had the kindness to send in a letter dated December 9, 1926, when reporting on my herbarium.

The names of the plants *new* to St. Pierre et Miquelon are marked

with an asterisk (*). The abbreviation C. stands for *common;* CC., for *very common;* R., for *rare;* and RR., for *very rare.*

POLYPODIUM VIRGINIANUM L.—Mossy and rocky hillsides and banks, shaded rocks, sometimes tree trunks; C. in Miquelon; R. in St. Pierre. Belle Rivière Valley, Langlade, July 18, 1901.

Named *P. vulgare* L. by Bonnet and Delamare.

PTERIDIUM LATIUSCULUM (Desv.) Maxon.—Open places, woody hillsides; CC. Cap Noir, St. Pierre, July 10, 1901.

Named *Pteris aquilina* L. by Gautier, Bonnet and Delamare.

*ATHYRIUM ANGUSTUM (Willd.) Presl., var. RUBELLUM (Gilbert) Butters.—Moist woods, shaded ravines; C. in Langlade; R. in Grande Miquelon; not found in St. Pierre. Belle Rivière Valley, July 18, 1901.

THELYPTERIS SPINULOSA (O. F. Muell.) Nieuwl., var. AMERICANA (Fisch.) Weatherby.—Woods and thickets, in damp soil; C. Bois de Mirande, Miquelon, July 23, 1901.

Named *Polystichum spinulosum* DC. by Bonnet and Delamare.

Thelypteris hexagonoptera (Michx.) Weatherby is reported by Delamare. I did not see it. Professor Fernald writes: "This plant is not known east of southern Maine." It is possible that there is an error of determination and that, for instance, vigorous specimens of the related species *Thelypteris Phegopteris* (L.) Slosson have been mistaken for *T. hexagonoptera. T. Phegopteris* is not rare in Miquelon.

*ONOCLEA SENSIBILIS L.—Moist woods, grassy brooksides; C. in the wooded parts of Langlade; R. in Grande Miquelon. Belle Rivière Valley, July 18, 1901.

EQUISETUM SYLVATICUM L., var. PAUCIRAMOSUM Milde. See RHODORA, XX. 131 (1918).—Moist woods, damp shady places (sandy or muddy); CC. Anse à Ravenel, Saint Pierre, June 20, 1901; Belle Rivière, Langlade, July 18, 1901.

Bonnet and Delamare record the type instead of the American (and Asiatic) variety.

*EQUISETUM LITTORALE Kühlewein.—Wet or inundated sandy places; marshy banks of streams; in Miquelon only, where it is not very common; not found in St. Pierre. Marshes in Belle Rivière Valley, July 18, 1901.

Professor Fernald writes: "*Equisetum littorale* is an interesting extension eastward from central Nova Scotia."

*EQUISETUM SCIRPOIDES Michx.—Moist, sandy or rocky woods especially in the shade of evergreens; R.; not found in St. P. Wooded banks of Belle Rivière, June 21, 1902.

*LYCOPODIUM LUCIDULUM Michx.—Moist woods; R.; not found in St. P. Belle Rivière Valley, near Les Fourches, June 1, 1903.

*LYCOPODIUM ANNOTINUM L., var. PUNGENS Desv.—Exposed places, summits of hills; C., but less frequent than the type. Summit of La Vigie, St. Pierre, June 18, 1903.

*LYCOPODIUM SABINAEFOLIUM Willd., var. SITCHENSE (Rupr.) Fernald.—Hillsides, dry coniferous woods; C. Anse à Henry, St. Pierre, May 26, 1903.

LYCOPODIUM CLAVATUM L., var. BREVISPICATUM Peck.—Rocky hills and plains, dry woods; C. in Miquelon; R. in St. Pierre. Ruisseau du Renard, Miquelon, July 24, 1901.

Delamare and Bonnet report the type.

LYCOPODIUM COMPLANATUM L., var. FLABELLIFORME Fernald.—Dry woods particularly of evergreens; R. Belle Rivière Valley, August 16, 1902.

Delamare and Bonnet report *L. complanatum* L. Very likely they give that name to the variety *flabelliforme;* but the type, which I never met, may possibly grow in the Islands.

I did not find *Lycopodium inundatum* L., var. *Bigelovii* Tuckerm. This variety, which is rather common in Cape Breton, Nova Scotia and S. E. Newfoundland, is to be looked for in St. Pierre et Miquelon. The type is frequent: Etange du Trépied, St. Pierre, May 27, 1901.

In regard to *Lycopodium alpinum* L., reported by Gautier, Professor Fernald writes: "I suspect that he had *L. sabinaefolium*, var. *sitchense* which was mistaken several times by early Newfoundland collectors for *L. alpinum*. *L. sabinaefolium*, var. *sitchense* is common in southern Newfoundland, but we have never had any trace of *L. alpinum* south of northern Labrador, except on the mountains of the Gaspé Peninsula."

*PINUS STROBUS L.—Woods; R; found neither in Grande Miquelon nor in St. Pierre. Belle Rivière Valley, July 19, 1902.

*PICEA RUBRA (Du Roi) Dietr.—Belle Rivière Valley, August 24, 1900.

I did not find this tree anywhere except in the woods of Langlade where it is mixed with *Picea mariana* and *P. canadensis*. These last two species grow in Grande Miquelon and St. Pierre, and seem much more common, but there they are not taller than mere shrubs. In the wooded valleys of Langlade *P. mariana, canadensis* and *rubra* grow as high as 10 metres, but even there that size is exceptional.

ABIES BALSAMEA (L.) Mill., var. PHANEROLEPIS Fernald, RHODORA, xi. 203 (1909).—Anse à Ravenel, St. Pierre, June 3, 1900. Dwarf

tree which, very often, particularly in St. Pierre, does not reach 1 metre, and forms dense thickets.

The type is reported by Gautier and Delamare. In Nova Scotia both the variety and the type are native; it may be the same in St. Pierre et Miquelon. Bonnet is not aware of the existence of this tree which, very likely, is the most common in the country.

JUNIPERUS COMMUNIS L., var. MONTANA Ait.—Rocky, gravelly and sandy places; plains and hills; C. Anse à Ravenel, St. Pierre, June 6, 1901.

Named *J. communis* L. by Gautier, Bonnet and Delamare.

JUNIPERUS HORIZONTALIS Moench.—In the same stations as the preceding, but less common. La Vigie, St. Pierre, June 7, 1900.

Named *J. virginiana* L. by Bonnet and Delamare, and *J. sabina* L. by Gautier.

NOTE ON TSUGA CANADENSIS (L.) Carr.—Delamare says this tree is very common in Miquelon. I never met with it. Indeed Delamare's affirmation cannot be easily accounted for, and there must have been some confusion. Bonnet's "Florule" does not mention the tree which, as far as I know, is not found in Newfoundland. On the eastern American continent, it does not go beyond, if it reaches it, the 48th degree of latitude. Delamare did not supply the Paris Museum with any specimens of *Tsuga canadensis:* the only *Coniferae* Bonnet indicates as coming from that botanist are *Juniperus communis* and *virginiana.* As *Tsuga canadensis* grows in Nova Scotia, it may have reached Miquelon, but in that case it must be very rare. I did not keep it in the general list.

SPARGANIUM ANGUSTIFOLIUM Michx.—Shallow water in ponds, sometimes in brooks; C. Etang du Fauteuil, Saint Pierre, August 25, 1899.

Very likely the plant named *S. natans* L. by Gautier, Bonnet and Delamare.

POTAMOGETON POLYGONIFOLIUS Pourret.—Pools and shallow ponds; quiet streams; CC. Savoyard, St. Pierre, September 2, 1900.

Named *P. natans* L. by Gautier, Bonnet and Delamare.

*POTAMOGETON EPIHYDRUS Raf.—Ponds and slow brooks; C. in Miquelon; R. in St. Pierre. Ruisseau de la Carcasse, Miquelon, July 23, 1901.

Gautier reports *P. plantagineus* Du Croz (*P. coloratus* Hornem.), which is not known in America. Perhaps he gives that name to the preceding species or to *P. heterophyllus* Schreb., which is not rare in still or running water in St. Pierre as well as in Miquelon.

POTAMOGETON BUPLEUROIDES Fernald.—Still, sometimes flowing water; often in brackish ponds. Plain near the hill called Chapeau de Miquelon, July 23, 1901.

Named *P. perfoliatus* L. by Delamare.

RUPPIA MARITIMA L., var. OBLIQUA Aschers. and Graebn.—In brackish water; not common. Grand Etang de Miquelon (communicating with the sea), July 23, 1901.

Named *R. rostellata* Koch by Bonnet.

*ZOSTERA MARINA L., var. ANGUSTIFOLIA Hornem.—Sandy bays, above and immediately below low-water mark; not common in Miquelon; not found in St. Pierre. Isthmus of Langlade, August 24, 1900.

*ECHINOCHLOA CRUS-GALLI (L.) Beauv.—Introduced in cultivated ground; not C. Garden in St. Pierre, September 2, 1900.

*SETARIA LUTESCENS (Wigel) Hubbard.—As the preceding; R. Garden in St. Pierre, September 10, 1900.

*HIEROCHLOE ODORATA (L.) Wahl.—Damp places; low plains and brooksides; R; not found in St. Pierre. Belle Rivière Valley, Langlade, August 16, 1902.

*HIEROCHLOE ALPINA (Sw.) R. & S.—Hillsides and high exposed places; R; not met with in Miquelon, but likely to grow there on the summits of the hills. Hill above Anse à Pierre, St. Pierre, June 28, 1903.

ALOPECURUS GENICULATUS L.—Low and inundated grounds; banks of rivers and brooks; C. Anse à Ravenel, St. Pierre, June 6, 1901.

Reported by Gautier, but not by Bonnet and Delamare. Seems to be native.

*AGROSTIS ALBA L., var. MARITIMA (Lam.) G. F. W. Meyer.—Rocky or sandy places near the sea; salt meadows; C. Banks of the Etang de Savoyard, St. Pierre, August 26, 1901. Native plant.

*CALAMAGROSTIS PICKERINGII Gray, var. DEBILIS (Kearney) Fern. & Wieg., RHODORA, XV. 135 (1913).—Marshes and brooksides, damp woods; C.; R. in St. Pierre. Chapeau de Miquelon, July 31, 1901.

*CALAMAGROSTIS CANADENSIS Beauv., var. ROBUSTA Vasey.—In the same station as the preceding, with which it very often grows; C. Banks of the Ruisseau de Mirande, Miquelon, July 31, 1901.

AMMOPHILA BREVILIGULATA Fernald.—Sandy beaches; C. Covers extensive areas on the dunes of Miquelon; a sand-binder like *Elymus arenarius*, var. *villosus*, but more frequent. Anse à Pierre, St. Pierre, August 26, 1899.

Named *A. arenaria* by Bonnet and Delamare.

*CINNA LATIFOLIA (Trev.) Griseb.—Swamps and moist woods, R.; not found in St. Pierre. Belle Rivière Valley, Langlade, August 2, 1901.

*Avena sativa L.—Introduced in cultivated ground and persisting several years in the same locality. Phare de Galantry, St. Pierre, on the roadside, August 18, 1902.

*Danthonia spicata (L.) Beauv.—Dry and rocky places, heathy hillsides and cliffs; C. Phare de Galantry, near Cap Noir, St. Pierre, August 18, 1902.

Spartina Michauxiana Hitch.—Damp places, especially brackish marshes, borders of ponds and pools communicating with the sea; C. Sand dunes near Pointe au Cheval and the Grand Barachois, August 24, 1900. There were great masses of the plant on the borders of the Grand Barachois, a great expanse of salt water, 5 square miles in area.

Named *S. cynosuroides* Willd. by Bonnet; not seen by Gautier and Delamare.

*Poa annua L.—Introduced from Europe and naturalized; CC. Town of St. Pierre, August 31, 1900. The most common of *Gramineae* in cultivated ground and near dwellings, roads, courtyards, waste places. It is strange that nobody ever recorded this plant.

*Glyceria nervata (Willd.) Trin.—Wet or inundated ground; C. in Miquelon; not found in St. Pierre. Plain of Mirande, Miquelon, August 26, 1900.

*Glyceria borealis (Nash) Batchelder.—Shallow water; C. Plain of Savoyard, St. Pierre, August 26, 1901.

*Festuca rubra L., var. oraria Dumort.—Maritime sands and shingle, brackish meadows; C. Savoyard, St. Pierre, August 26, 1901. Doubtless native.

Bromus ciliatus L., var. denudatus (Wieg.) Fernald.—Moist woods; banks of streams; C. Ruisseau des Terres Grasses, Miquelon, July 29, 1901.

It is very likely to this plant that Gautier, and Delamare after him, gives the name of *Bromus canadensis* Michx.

Scirpus caespitosus L., var. callosus Bigelow.—Swamps, rocky and damp places, reaching the summits of hills; C. Sept Etangs, St. Pierre, June 14, 1900 and May 25, 1901.

Bonnet and Delamare record the type for the variety, which is the only form found in the Islands.

*Scirpus subterminalis Torr.—In ponds and quiet streams; wholly aquatic with floating leaves; R. Pool in the plain near the Chapeau de Miquelon, July 31, 1901.

*Scirpus americanus Pers.—Salt or fresh water, borders of ponds and streams; R. Banks of Mirande Pond, Miquelon, July 31, 1901.

Scirpus rubrotinctus Fernald.—Swamps and marshy borders of streams; C. in Miquelon; R. in St. Pierre. Belle Rivière, Langlade, August 2, 1901.

Named *S. sylvaticus* L., var. *atrovirens* Gray by Bonnet and *S. atrovirens* Muhl. by Delamare.

ERIOPHORUM SPISSUM Fernald, RHODORA, XXVII. 208 (1925).—Everywhere in bogs and marshy plains. Sept Etangs, St. Pierre, July 19, 1900.

Named *E. vaginatum* L. by Gautier, Bonnet and Delamare.

ERIOPHORUM SPISSUM Fernald, var. ERUBESCENS Fernald, l. c. 209 (1925).—Bogs; very often with the preceding. Sept Etangs, St. Pierre, July 19, 1900.

Named *E. russeolum* Fries by Bonnet and Delamare.

ERIOPHORUM ANGUSTIFOLIUM Roth., var. MAJUS Schultz.—In bogs with the type; CC. Sept Etangs, St. Pierre, July 19, 1900.

Named *E. latifolium* Hoppe. by Delamare.

*CAREX EXILIS Dewey.—Bogs and marshes; the most common *Carex* in the Islands: occurs nearly everywhere in watery ground, and nevertheless not yet recorded. Etang du Milieu, Saint Pierre, July 25, 1900.

*CAREX CANESCENS L.—Swamps and bogs; CC. St. Pierre, Anse à Ravenel, July 10, 1902, and Etang du Té.égraphe, August 7, 1902.

*CAREX CANESCENS L., var. DISJUNCTA Fernald.—With the preceding, perhaps less common. Anse à Ravenel, July 10, 1902. This variety seems very constant; it is a much stronger plant than the type and the length of the inflorescence may reach 15 centimetres.

In 1903, specimens from Sept Etangs, St. P., July 3, 1902, were put under *Carex arcta* Boott by the New York Botanical Garden. I no longer have this material. Prof. Fernald fears there must have been an error of determination since "we do not know of *C. arcta* east of the rich limy valleys of New Brunswick; it is not in Nova Scotia, nor in Newfoundland." I drop *C. arcta* from the list of St. Pierre et Miquelon plants.

*CAREX BRUNNESCENS (Pers.) Poir., var. SPHAEROSTACHYA (Tuckerm.) Kükenthal.—Damp or dry places, chiefly rocky or gravelly; high ground; C., but less frequent than *C. canescens*. Point culminant de St. Pierre (204 metres), August 7, 1902.

*CAREX TRISPERMA Dewey.—Bogs, damp shaded places; C. Anse à Dinant, St. Pierre, August 13, 1902.

*CAREX MURICATA L., var. CEPHALANTHA (Bailey) Wieg. & Eames.—Low ground; C. Ruisseau de Mirande, Miquelon, July 26, 1902.

*CAREX STIPATA Muhl.—Moist woods, marshy borders of streams; R. in Miquelon; not found in St. Pierre. Belle Rivière Valley, July 25, 1901.

*CAREX MARITIMA Müller.—Brackish soil, damp saline meadows; C. Near Etang de Savoyard, St. Pierre, June 19 and July 10, 1902.

*Carex salina Wahl., var. kattegatensis (Fries) Almq.—Salt marshes, borders of brackish ponds, pools drying in summer; not R. in Miquelon; not found in St. Pierre. Boggy plain east of Pousse-Trou, Miquelon, July 25, 1902.

*Carex gynandra Schwein.—Damp and boggy woods; grassy borders of streams; C. in Miquelon; not found in St. Pierre. Belle Rivière Valley, June 21, July 19 and August 16, 1902.

Not easy to distinguish from *C. crinita* Lam., which seems rarer in Miquelon. I found *C. crinita* only in Langlade (Ruisseau Lebon, July 15, 1902), perhaps in Beautemps-Beaupré's locality. I did not meet with it in Grande Miquelon, where *C. gynandra* is frequent.

*Carex aquatilis Wahl.—In water: borders of streams and ponds; R. Belle Rivière, Langlade, June 21, 1902. The specimens from this locality, though found sufficiently typical by Professor Fernald are very immature. I had better material from Anse aux Soldats, Langlade, collected on July 15, 1901, but it was lost.

*Carex Goodenovii J. Gay, var. strictiformis (Bailey) Kükenthal.—Damp places; C. Marsh near Pousse-Trou, Miquelon, July 25, 1902.

The type is reported by Delamare. It is very common in damp, and sometimes dry places, and it assumes different forms according to the station where it grows (Belle Rivière, July 20, 1902; Plain near the Village of Miquelon, July 25, 1902).

Carex Haydeni Dewey. (*C. aperta* Carey, not Boott).—Damp woods and bogs; R. Belle Rivière Valley, July 20, 1902.

It is very likely this plant that Bonnet and Delamare named *C. aperta* Boott.

*Carex leptalea Wahl.—Damp shady places; C. St. Pierre: Sept Etangs, August 13, 1902; Anse à Dinant, August 16, 1901. The collection from Sept Etangs is a dwarf form of the plant.

*Carex Buxbaumii Wahl.—Bogs and borders of streams; woods; R. in Miquelon; not found in St. Pierre. Belle Rivière Valley, July 20, 1902.

*Carex gracillima Schw.—Moist woods; C. in Miquelon; R. in St. Pierre. Belle Rivière Valley, June 21 and August 16, 1902.

*Carex scirpoidea Michx.—Cliffs, gravelly and rocky hillsides, high unsheltered places; R. in Miquelon; not found in St. Pierre. Anse à Trois-Pics, Miquelon, July 27, 1901.

*Carex deflexa Hornem.—Dry places, open woods; C. Cap à l'Aigle, St. Pierre, August 7, 1900.

*Carex novae-angliae Schwein.—Dry shady woods, sometimes open places; C. Sept Etangs, St. Pierre, August 7, 1900.

*Carex livida Willd., var. Grayana (Dewey) Fernald, Rhodora, xxviii. 8 (1926).—Bogs and sphagnous swamps; C. Anse à Ravenel, St. Pierre, June 12, 1899 and July 25, 1900.

Delamare reports *C. panicea* L. as CC. in bogs. It is not known in Newfoundland, according to Professor Fernald who writes: "We have no evidence of *C. panicea* from east of Nova Scotia." It is to be feared that Delamare mistook for it *C. livida*, var. *Grayana*.

*CAREX PALLESCENS L.—Grassy borders of streams; R. in Miquelon; not found in St. Pierre. Meadow near the Government House, Langlade, August 2, 1901.

*CAREX PAUPERCULA Michx.—Bogs; dune hollows; R. in Miquelon; not found in St. Pierre. Sand dunes, west of Grand Barachois, Miquelon, July 31, 1902.

*CAREX RARIFLORA J. E. Smith.—Boggy and rocky places; ascends the highest plains and hills; C. Sept Etangs, St. Pierre, June 27, 1901.

On the Isthmus of Langlade (sand dunes W. of Grand Barachois, July 16, 1902), I found a form, with loose spikes, of *C. rariflora*, simulating *C. limosa*, and growing with the last. *C. limosa* is more common than *C. rariflora*.

*CAREX PEDUNCULATA Muhl.—Dry woods, shady and rocky banks; R.; not found in St. Pierre. Les Voiles Blanches, Langlade, July 20, 1902, and June 1, 1903.

*CAREX CONOIDEA Schk.—Damp grassy places, bogs; C. Plain of Savoyard, St. Pierre, August 26, 1901.

*CAREX LEPIDOCARPA Tausch.—Borders of streams, damp woods; not C.; not found in St. Pierre. Anse aux Soldats, Langlade, August 16, 1902.

I collected in Belle Rivière Valley, August 2, 1901 and June 21, 1902, other specimens of *C. lepidocarpa* which are also deposited at the Gray Herbarium. Prof. Fernald thinks this material might have some crossing with *C. Œderi*, a plant very common in the Islands.

*CAREX DEBILIS Michx., var. RUDGEI Bailey (*C. flexuosa* Mill.).—Damp shady woods; C. in Langlade; not found in St. Pierre. Tête-Pelée near Anse à Ross, and Belle Rivière, Langlade, July 25, 1901.

*CAREX OLIGOSPERMA Michx.—Swamps and boggy plains; C. in Miquelon; not found in St. Pierre. Plain between the Chapeau de Miquelon and Mirande Pond, July 31, 1901.

*CAREX MICHAUXIANA Boeckl.—Bogs, grassy borders of streams; C. in Miquelon, where it is mixed with *C. folliculata* L.; not found in St. Pierre. Mirande, Miquelon, July 31, 1901.

*CAREX HOSTIANA DC., var. LAURENTIANA Fern. & Wieg., RHODORA, xxvi. 122 (1924).—Bogs; R. in Miquelon; not found in St. Pierre. Belle Rivière Valley, June 21 and July 20, 1902.

*CAREX ROSTRATA Stokes.—Damp, sometimes inundated places, borders of streams; with the following but less common; not found in St. Pierre. Belle Rivière Valley, Langlade, July 18, 1901.

*CAREX ROSTRATA Stokes, var. UTRICULATA (Boott) Bailey.—Same habitat as the type; C. in Miquelon; not found in St. Pierre. Ruisseau Sylvain, Miquelon, July 26, 1902.

JUNCUS BALTICUS Willd., var. LITTORALIS Engelm.—Sandy places, borders of streams and ponds, often in brackish water; C. Plain near the Village of Miquelon, July 24, 1901.

Named *J. balticus* Willd. by Gautier, Bonnet and Delamare.

JUNCUS EFFUSUS L., var. CONGLOMERATUS (L.) Engelm.—Damp places, CC. Chapeau de Miquelon, July 31, 1901.

Recorded by Gautier and Delamare under the name *J. conglomeratus* L. Prof. Fernald writes: "There is no sharp line between *J. conglomeratus* and *J. effusus* in America. We have intermediate varieties which completely bridge the gap."

*JUNCUS EFFUSUS L., var. SOLUTUS Fern. & Wieg.—Marshy ground, brooksides; R; not found in St. Pierre. Belle Rivière Valley, Langlade, August 30, 1899.

JUNCUS BULBOSUS L.—Damp, inundated places, sandy or muddy borders of streams and ponds; C. North side of Etang de Mirande, Miquelon, July 31, 1901. Prof. Fernald writes: "This plant is very common on the Avalon Peninsula of Newfoundland. Your specimens, though immature, are thoroughly typical of the extreme smaller phases of the species. *J. bulbosus* is treated by Buchenau as *J. supinus* (a later name) and he records it as having been collected by La Pylaie in Newfoundland." Common also on Sable Island.

Very likely this is the plant recorded by Delamare as *J. Tenageia*, a S. European annual, growing also in N. Africa and W. Asia, which may be confused with small erect forms of *J. bulbosus*.

JUNCUS ARTICULATUS L., var. OBTUSATUS Engelm.—Damp sandy (often brackish) soil; C. in Miquelon; R. in St. Pierre. Borders of Etang de Mirande, Miquelon, July 31, 1901. Common on Sable Island in wet dune hollows.

Reported by Delamare under the synonym *J. lamprocarpus* Ehrh. Prof. Fernald writes: "This is a characteristic form of eastern America, but your material is the first I have seen from east of Nova Scotia."

*JUNCUS STYGIUS L., var. AMERICANUS Buchenau.—Marshy ground; R. Ruisseau des Terres Grasses, Miquelon, July 31, 1901.

I did not examine with sufficient care the genus *Juncus*. I intended to study it thoroughly during the summer of 1903, as I had done the genus *Carex* in 1901 and 1902, but I was prevented from doing so by my sudden departure early in the summer of 1903. Delamare records *J. glaucus* Ehrh. which is now known only as a local introduction in New York State, although Coste (*Fl. de France*, I. 449)

gives it as native in boreal America. I did not meet with it, but I did not specially endeavor to find it; it was the same with *J. trifidus*, *biglumis* and *canadensis*, reported by Gautier. I have left *Juncus glaucus* and *J. biglumis* in the general list of St. Pierre et Miquelon plants though Prof. Fernald writes: "I suspect that Delamare's report of *J. glaucus* was based upon *J. effusus*, var. *Pylaei*, which superficially resembles it. In regard to *J. biglumis* we have no positive evidence of the species from south of the northernmost part of Labrador."

I did not include in the general list "*J. setaceus* L.," reported by Gautier. It is not easy to say which species he refers to: *J. setaceus* Rostk. is not known north of Delaware.

LUZULA SALTUENSIS Fernald.—Wooded banks, hillsides; C. Les Voiles Blanches, Langlade, June 1, 1903. "The only material I have seen from east of Nova Scotia." (Prof. Fernald.)

Named by Delamare *Luzula pilosa* DC.

*LUZULA CAMPESTRIS (L.) DC., var. ACADIENSIS Fernald, RHODORA, xix. 38 (1917).—Woods and thickets, damp or dry places; C. Cap à l'Aigle, St. Pierre, June 21, 1900. "I have found this variety recently in central Newfoundland." (Prof. Fernald.)

LUZULA CAMPESTRIS (L.) DC., var. CONGESTA (Thuill.) Meyer.—Hillsides, wooded or open plains; C. Hill of La Vigie, St. Pierre, August 14, 1902. "I secured var. *congesta* in southern Newfoundland." (Prof. Fernald.)

Gautier and Bonnet record the type which grows in Europe and Asia and perhaps in northwestern America. Very likely they mean either var. *acadiensis*, or var. *congesta* which Delamare gives as the only form of the species in Miquelon. Besides Bonnet referred to the type, not to var. *congesta*, the specimens Delamare sent to the Museum of Paris.

Delamare records also var. *multiflora*, which is very common, but he gives it a specific rank.

*IRIS SETOSA Pall., var. CANADENSIS Foster (*Iris Hookeri* Penny).—Wet, marshy ground (often brackish); CC. Anse à Marc Cadet, St. Pierre, August 2, 1900.

Very often mixed with *I. versicolor* and doubtless confused with it by De La Pylaie, Gautier and Delamare who mention only *I. versicolor*.

SISYRINCHIUM ANGUSTIFOLIUM Miller.—Light sandy soil, generally damp; CC. Plain of Savoyard, St. Pierre, July 14 and Sept. 2, 1900.

Named *S. bermudiana* L. by Gautier, and *S. anceps* L. by Bonnet and Delamare.

I do not drop from the list of Miquelon plants *Cypripedium spectabile* (*Cypr. hirsutum* Mill.) reported by Gautier. But it is not impossible that he applied this name to the common bog plant *C. acaule*, not even mentioned by him.

*HABENARIA OBTUSATA (Pursh) Richards.—Swamps and wet woods; C. Anse aux Soldats, Langlade, July 18, 1901.

*HABENARIA HOOKERI Torrey.—Damp places, woods and thickets; R. Heights of Cap à l'Aigle, St. Pierre, June 28, 1903. (Specimens at the New York Botanical Garden.)

HABENARIA LACERA (Michx.) R. Br.—Damp woods; R. in Langlade; not found in Grande Miquelon or in St. Pierre. Belle Rivière Valley, August 2, 1901.

I think the report of *H. lacera* by Bonnet and Delamare is not to be applied to the type which seems to be rare and was found by me only in the woods of Langlade, but to var. *terrae-novae* which is common and the usual form of the species in the Islands.

*HABENARIA LACERA (Michx.) R. Br., var. TERRAE-NOVAE Fernald, RHODORA, xxviii. 21 (1926).—Boggy plains; open places in woods; C. Cap de Miquelon, August 11, 1900.

*HABENARIA PSYCODES (L.) Sw.—Swamps, open marshy or boggy plains; C. Cap de Miquelon, August 11, 1900.

HABENARIA FIMBRIATA (Ait.) R. Br.—Woods; R. in Miquelon; not found in St. Pierre. Belle Rivière, Langlade, July 18, 1901. Blooms a little earlier than *H. psycodes*, and is much less common.

I think the report by Gautier, Bonnet and Delamare of *H. fimbriata* is for *H. psycodes* which they do not mention; so much the more as the last plant grows in the localities given by Bonnet and Delamare for *H. fimbriata.*

*SPIRANTHES ROMANZOFFIANA Cham.—Dry or wet places, sandy or boggy; C. Isthmus of Langlade, August 24, 1900.

I did not find *S. cernua* (L.) Rich., reported by Bonnet, Delamare and Gautier. Perhaps they confused the latter with *S. Romanzoffiana.* But as *S. cernua* is abundant in Nova Scotia and like other Nova Scotian species may have reached St. Pierre et Miquelon, I leave it in the flora.

EPIPACTIS REPENS (L.) Crantz, var. OPHIOIDES (Fernald) A. A. Eaton.—Damp, mossy woods; R. in Miquelon; not found in St. Pierre. Les Fourches, Belle Rivière Valley, Langlade, June 1, 1903.

Named *Goodyera repens* R. Br. by Gautier; not reported by the other observers.

*LISTERA CORDATA (L.) R. Br.—Damp woods, in mossy and shady banks; R. in Miquelon; not found in St. Pierre. Les Fourches, Belle Rivière Valley, July 18, 1901.

*LISTERA CONVALLARIOIDES (Sw.) Torr.—Same habitat as the preceding. Anse aux Soldats, Langlade, July 18, 1901.

*CORALLORHIZA MACULATA Raf.—Damp woods, moist shady places; R. in Miquelon; not found in St. Pierre. Wood below Tête-Pelée, Langlade, August 16, 1902.

*CORALLORHIZA TRIFIDA Chatelain.—Same stations as the last; R. Belle Rivière Valley, Langlade, June 21, 1902.

*SALIX PEDICELLARIS Pursh.—Bogs, borders of streams and ponds; R. Etang aux Outardes, Miquelon, July 20, 1901; also Belle Rivière, June 1, 1903.

*SALIX LUCIDA Muhl.—In the same stations as the preceding; R. Ruisseau Sylvain, Miquelon, July 18, 1902.

*POPULUS TREMULOIDES Michx.—Wooded valleys; R.; found only in Langlade. Belle Rivière, May 20 and August 16, 1902.

*POPULUS TACAMAHACCA Mill.—With the preceding; not found in Grande Miquelon or St. Pierre. Belle Rivière, July 25, 1901.

Delamare points out that some observers claim to have found in Langlade *Salix longifolia, purpurea, repens* and *herbacea. Salix longifolia* Muhl. does not seem to grow in Newfoundland; I never met with it in St. Pierre et Miquelon, but I collected it in the vicinity of Montreal where it is common. *Salix purpurea* L. is introduced in the eastern States and in Nova Scotia; it may be naturalized in the Belle Rivière Valley. *Salix repens* L. is not recognized by students of *Salix* as growing in America: there is, perhaps, some confusion with *Salix Uva-ursi* Pursh which is common all over the Islands, though Delamare did not record it. *Salix herbacea* L. has been found only in northern Newfoundland, in Arctic America and on the high summits of Gaspé, Maine and New Hampshire; it is not likely that it is native in Saint Pierre et Miquelon.

MYRICA CAROLINENSIS L.—Wet or dry sandy and rocky places; C., but less frequent than *Myrica Gale* L. which is seen nearly everywhere in damp places. Sept Etangs, St. Pierre, June 27 and August 13, 1901.

Named *M. cerifera* L. by Bonnet.

*BETULA PAPYRIFERA Marsh., var. CORDIFOLIA (Regel) Fern.—Borders of streams, damp woods; C. Anse à Dinant, St. Pierre, May 25, June 27 and July 19, 1900. Only a small shrub.

It is perhaps this plant which is called *B. papyrifera* (the type) by Bonnet and reported by him as growing in St. Pierre in fir woods. I did not meet with the type in St. Pierre and in Grande Miquelon,

but I found it in Belle Rivière and Anse aux Soldats Valleys, in Langlade; Tête Pelée Wood, August 2, 1901. It is a tree that may reach a height of 8 metres, and whose leaves are smaller and very different from those of var. *cordifolia;* their base is truncate, not cordate. The type seems very rare.

Gautier reports *Betula pubescens* Ehrh. for *B. papyrifera* or its variety.

*Betula lutea Michx. f.—Native in the woods of Langlade, where it is rare; not found in Grande Miquelon or St. Pierre. Anse aux Soldats, July 20 and August 16, 1902; Belle Rivière, June 21, 1902. Reaching 8 metres.

Betula Michauxii Spach is reported by Bonnet, on the authority of De La Pylaie, as growing in all low grounds in St. Pierre and also in Miquelon. Delamare and I overlooked it; we collected only *Betula pumila* L., which is very common in moist soil, and which reaches the highest plains and hills. Bonnet also reports *B. pumila.*

Gautier's record of *Betula nana* L. is doubtless for *B. Michauxii.*

Alnus crispa (Ait.) Pursh, var. mollis Fernald, Rhodora, xv. 44 (1913).—Bogs and wet places; CC. Anse à Ravenel, St. Pierre, June 3, 1900.

Named *A. viridis* DC. by Gautier, Bonnet and Delamare.

*Alnus incana (L.) Moench.—Moist woods, borders of streams; R.; found only in Langlade. Belle Rivière, May 20 and July 19, 1902.

Gautier records with *A. viridis* DC., *A. glutinosa* Gaertn. He says: "Ces deux aulnes forment des buissons assez fournis au milieu desquels on trouve, dans les bois de Langlade, le *Corylus americana.*" If *A. glutinosa* grows in St. Pierre et Miquelon, it must have been introduced; perhaps Gautier reports it for *A. incana* which is found in Langlade, but is much rarer than *A. crispa,* var. *mollis.*

Bonnet, no doubt quoting De La Pylaie, says Laportea canadensis (L.) Gaud. is found only "dans les lieux pierreux fréquentés par l'homme." I found this plant in the woods of Langlade at a good distance from dwelling places, and there it seemed to be native; Belle Rivière, August 16, 1902. However, its introduction from the American continent—Nova Scotia or Cape Breton—is not impossible. Professor Fernald writes it was not found in Newfoundland.

Rumex mexicanus Meisn.—Damp (usually brackish) soil; borders of ponds; C. Salt marshes near Etang de Mirande, Miquelon, July 25, 1902.

Named by Bonnet *R. salicifolius* Weinm.

*POLYGONUM RAII Bab.—Maritime sand and shingle; C. locally. Sandy borders of Grand Etang de Miquelon, July 31, 1901.

POLYGONUM NATANS (Michx.) Eaton. See Stanford, RHODORA, xxvii. 158 (1925).—Ponds and quiet streams; C. Etang de Savoyard, September 2, 1900.

An exclusively American plant to which Delamare and Bonnet give the name of the European *Polygonum amphibium* L., var. *natans* Moench.

*POLYGONUM NATANS (Michx.) Eaton, forma HARTWRIGHTII (A. Gray) Stanford.—Damp sandy places; terrestrial and usually sterile; R. Anse à Ravenel, St. Pierre, shingle bank near the sea, Sept. 2, 1900.

POLYGONUM HYDROPIPER L.—Damp places; R. Anse à Ravenel, August 20, 1901. Native.

Reported by Gautier, but not by Bonnet and Delamare.

POLYGONUM SAGITTATUM L.—Low ground, marshy and peaty plains; C. Anse à Ravenel, August 27, 1902.

Reported only by Gautier.

(*To be continued*)

THE CASE OF THE GRASS GENUS DILEPYRUM.

AGNES CHASE.

THE name *Dilepyrum* Michx. has been taken up by Farwell[1] to replace the long-established *Brachyelytrum*, a genus of grasses represented by a single species, *B. erectum* (Schreb.) Beauv., rather common in the eastern United States. The substitution of *Dilepyrum* for *Brachyelytrum* has been accepted by some without verification. Before *Dilepyrum* comes into more general use it seems desirable to correct Mr. Farwell's misconception.

Dilepyrum[2] is described with two species, *D. aristosum* and *D. minutiflorum*. The second species, the type of which is preserved in the Paris Herbarium, where it was examined by Professor Hitchcock in 1907, is *Muhlenbergia Schreberi* Gmel.[3] No specimen of the first, *D. aristosum*, can be found. Elliott[4] refers it with a question to *Muhlenbergia erecta*, indicating at two points in his description his

[1] Midland Naturalist **8**: 33. 1922.
[2] Michx. Fl. Bor.-Amer. **1**: 40. 1803.
[3] See Types of American Grasses. Contr. U. S. Nat. Herb. **12**: 144. 1908.
[4] Bot. S. C. & Ga. **1**: 98. 1816.